

HTML Tables

Tables in HTML are used to display data in a structured, grid-like format. They consist of **rows** (`<tr>`), **headers** (`<th>`), and **data cells** (`<td>`).

1. Basic Table Structure

Core Tags:

Attribute	Description	Example
border	Border width (deprecated)	<code><table border="1"></code>
colspan	Number of columns to span	<code><td colspan="2"></code>
rowspan	Number of rows to span	<code><td rowspan="3"></code>
align	Horizontal alignment (left/right/center)	<code><td align="center"></code>
valign	Vertical alignment (top/middle/bottom)	<code><td valign="top"></code>

Example:

```
<table border="1">
  <caption>Employee Data</caption>
  <tr>
    <th>Name</th>
    <th>Age</th>
  </tr>
  <tr>
    <td>John</td>
    <td>25</td>
  </tr>
</table>
```

2. Table Styling & Attributes

Common Attributes:

Attribute	Description	Example
border	Border width (deprecated)	<table border="1">
colspan	Number of columns to span	<td colspan="2">
rowspan	Number of rows to span	<td rowspan="3">
align	Horizontal alignment (left/right/center)	<td align="center">
valign	Vertical alignment (top/middle/bottom)	<td valign="top">

Example (Merging Cells):

```
<table border="1">
  <tr>
    <th colspan="2">Personal Info</th>
  </tr>
  <tr>
    <td>Name</td>
    <td>John</td>
  </tr>
</table>
```

3. Advanced Table Features

Grouping Rows:

Tag	Description	When to Use
<thead>	Groups header content	Column headers
<tbody>	Groups body content	Main table data
<tfoot>	Groups footer content	Totals/summaries

Example:

```
<table border="1">
  <thead>
    <tr>
      <th>Product</th>
      <th>Price</th>
    </tr>
  </thead>
  <tbody>
```

```
<tr>
  <td>Laptop</td>
  <td>$999</td>
</tr>
</tbody>
<tfoot>
  <tr>
    <td>Total</td>
    <td>$999</td>
  </tr>
</tfoot>
</table>
```

4. Responsive Tables

For better mobile viewing, wrap tables in a `<div>` with `overflow-x: auto` :

```
<div style="overflow-x: auto;">
  <table>...</table>
</div>
```

5. Practical Questions

1. Basic Table:

- Create a table with **3 columns** (Name, Email, Phone) and **2 rows** of sample data.

2. Merging Cells:

- Make a timetable where **"Lunch Break"** spans across all columns.

3. Styling:

- Add a border, center-align headers, and right-align numbers in a price table.

4. Advanced Structure:

- Use `<thead>` , `<tbody>` , and `<tfoot>` in a sales report table.

5. Accessibility:

- Add a `<caption>` and `scope="col"` to headers for better screen reader support.

Bonus:

- Use CSS to style alternate rows with `nth-child(even)` for better readability.